Emphasis Areas

Smart Growth

Transportation Enhancement Projects

The federal Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) represented a new era in transportation legislation. ISTEA allows states increased flexibility in making critical transportation choices, encourages an ethic of environmental awareness and promotes the development of an intermodal transportation system. Included in ISTEA and continued under the Transportation Equity Act for the 21st Century (TEA-21) were a number of innovative programs such as the Transportation Enhancement (TE) Program. This program is a federal-aid highway reimbursement program. All programs must be selected, approved, programmed, and under contract with the Cabinet prior to expenditure of any funds. After initial review by the Cabinet's Division of Multimodal Programs and the Kentucky Heritage Council, eligible applications are forwarded to the Governor's Office for selection. After selection and project revisions have occurred, project information is submitted by the Cabinet to Federal Highway Administration (FHWA) for programming of funds for reimbursement. After this is complete, the applicant will enter into an agreement with the Kentucky Transportation Cabinet (KYTC). Federal funding will sponsor 80% of the cost of the project, while project sponsor(s) is responsible for 20%. Twelve activities qualify for Transportation Enhancement funds and they are:

- Provision of facilities for pedestrians and bicycles
- Provision of safety and educational activities for pedestrians and bicyclists
- Acquisition of scenic easements and scenic or historic sites
- Scenic or historic highway programs (including the provision of tourist and welcome center facilities)
- Landscaping and other scenic beautification
- Historic preservation
- Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals)
- Preservation of abandoned railway corridors—including conversion for use as bicycle and pedestrian trails
- Archaeological planning and research
- Mitigation of water pollution due to highway runoff or to reduce vehicle-caused wildlife mortality while maintaining highway connectivity
- Establishment of transportation museums

There is increased emphasis on providing transportation facilities that are compatible with the surrounding land use and environment, to make the most of available funding, and to enhance the economic vitality of Kentucky towns and cities.

Compatibility

There are two emphasis areas regarding the compatibility of transportation projects within their surroundings: small area planning and context sensitive solutions.

Small area planning has been used on a few breakthrough projects in Kentucky, namely Newtown Pike Extension in Lexington and Cemetery Road in Bowling Green. The purposes of small area planning are to assess the development/redevelopment potential for the area,

evaluate the impacts of the roadway, and produce a plan to allow for orderly development that is attuned with the vision of the local citizens.

Context sensitive solutions are an emphasis of KYTC on all projects. Beginning in the planning phase, planners and designers assess the purpose, environmental features, and context of the proposed project. They also probe local citizens and users of the roadway to find out their transportation needs and suggestions. Engineers use this input to design a project that addresses the transportation need and that blends with the physical environment in which it is built. To continue this commitment during the operation of a road, KYTC is studying the impacts of several activities including mowing, vegetation control, bridge painting, and erosion control. This research will develop '*best practices*' to improve these activities while protecting the environment.

Maximizing Funding Efficiency

Because of the demand to meet increasing transportation needs statewide while facing a funding shortfall, KYTC is implementing solutions that make the most of limited state and federal funds.

Maintenance and operation of the existing road system is paramount. The first area of emphasis is improving the timing of traffic signals systems to improve travel flow. The second area of emphasis is to develop an access management system. This system seeks solutions to balance access to land along a highway with the mobility and safety needs of travelers. The creation of an access management system maximizes the life-cycle of the roadway's functional design. The third area of emphasis is pavement rehabilitation, to ensure a smooth driving surface for Kentucky's travelers.

Ensuring Economic Vitality

The Renaissance Kentucky (RK) program was developed in 1996 under Governor Patton with the purpose of bringing together communities and resources necessary to revitalize and restore the downtown areas of Kentucky. The goals of Renaissance Kentucky are to recognize and honor those cities that have maintained or restored their central downtown areas as safe, vibrant, efficient, and functional urban cores, and to provide support and assistance on development strategies for those cities that want to improve their downtown areas. KYTC has been an active partner in the Renaissance program and provided over $26 million in funding for projects across the state.

The Transportation Enhancement program is a federally established program that KYTC administers. Projects are funded statewide and include projects for pedestrian and bicycle facilities, landscaping and beautification, historic preservation, mitigation of water pollution from highway runoff, acquisition of scenic or historic easements, and rehabilitation of historic transportation buildings.

Finally, as a result of overwhelming demand by Kentucky constituents, the Cabinet is dedicated to providing the necessary pedestrian and bicycle facilities as part of highway construction and maintenance projects. KYTC's adoption of the Pedestrian and Bicycle Travel Policy in 2002 represents a commitment to improved air quality, opportunities for increased fitness and health, and more livable, economically vibrant communities for Kentucky citizens. For Fiscal Year 2003 there were 76 Bike/Ped Facilities out of 155 TE projects. This represents $3,590,000 in Renaissance Kentucky Streetscapes and $2,055,000 in Independent Facilities.

The following counties have/are participating in the Transportation Enhancement Program through the Renaissance Kentucky Streetscape program:

- Allen
- Barren
- Bourbon
- Boyd
- Bracken
- Breathitt
- Breckinridge
- Bullitt
- Caldwell
- Calloway
- Campbell
- Carroll
- Christian
- Clark
- Crittenden
- Daviess
- Fayette
- Floyd
- Franklin
- Green
- Hardin
- Harlan
- Hart
- Henderson
- Henry
- Hopkins
- Jefferson
- Jessamine
- Lincoln
- Logan
- Madison
- Marion
- Mason
- McCracken
- Mercer
- Nicholas
- Oldham
- Pike
- Rowan
- Scott
- Shelby
- Warren
- Woodford

Total TE Funds Committed for FY 2003: $12,437,985.00

Education

Summer Transportation Institute

A key platform of the current administration is Kentucky Pays. One way the Kentucky Transportation Cabinet and Kentucky Division of the Federal Highway Administration contribute to this philosophy is by participating in the Summer Transportation Institute (STI). Special emphasis is placed on recruiting minority youth and youth with special needs.

This year Kentucky State University hosted its ninth annual STI. The month long STI, which drew high school students from around the Commonwealth, was held during June and July 2003. STI and STI II provide experience for above average secondary school students. This experience serves to enhance awareness of career opportunities that exist in the transportation industry. Students are exposed to new frontiers and adventures such as highway design, transportation of people and cargo, intermodal, laws, safety and environmental issues.

During STI phase of the program, students receive classroom instructions and take field trips to study real-life transportation issues.

The STI II phase of the program has three major components that the participants are involved with in order to get exposed to a career in transportation. These components are: 1) School—students are enrolled in an accelerated summer program for college credit related to a career in transportation, 2) Work—designed to teach leadership and team-building skills while providing income through Kentucky State University (KSU). Students in the STI II phase also work as junior counselors to the STI students, and 3) Research—students work as a group on a transportation-related research project. Students have access to resources at KYTC, Kentucky Transportation Center (KTC), KSU and the University of Kentucky (UK) to conduct their research.

Archeologists from the Kentucky Transportation Cabinet showed the STI participants how transportation and the environment inter-relate.

Staff from FHWA conducted workshops on Safety and Bridge Construction.

Eighteen students have graduated from the 2003 STI Program and four students have completed the 2003 STI II Program.

Kentucky Engineering Exposure Network (KEEN)

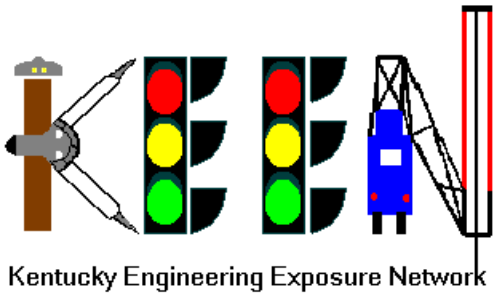
KEEN is a program developed by the Kentucky Transportation Cabinet to introduce students to the field of engineering. Presentations are given by the Transportation Cabinet engineers and staff to discuss the applications of math and science in daily situations and the opportunities and challenges available to students in the field of engineering. The KEEN program in Kentucky began in 1991, as a result of a task force on retention and recruitment of transportation professionals and was the first of its type in the entire nation. Since its implementation, the program has reached over 130,000 students throughout the Commonwealth.

KEEN provides an opportunity for both the Cabinet and local schools to work together, and allows Transportation Cabinet engineers to contribute to the students within their own communities. This promotes an enhanced public image of the Transportation Cabinet and of the engineering profession. In addition, the KEEN program follows many of the same concepts which are now required under Kentucky's Education Reform Act, including the Common Core of Learning concept and the application of basic skills in math and science as they relate to real life situations. KEEN is also one of the biggest avenues the Cabinet uses to inform students about the KYTC Civil Engineering Scholarship Program. Information about the program is at www.kytc.state.ky.us/person/ScholarshipProgram.htm.

KEEN presenters are available to make classroom presentations to all grade levels. Presentations are adapted to the different age groups and topics range from the work of engineers to computer applications. Hands-on activities are usually presented. New and innovative presentations are constantly being developed. KEEN helps administer a regional bridge building competition in Western Kentucky and attempts are being made to start this competition in Eastern Kentucky.

KEEN made 471 presentations reaching 13,621 students in 61 counties for the last school year. KEEN also had a display at the Kentucky State Fair, Engineering Day at UK, The Governor's Diversity Day, and numerous county fairs. KEEN volunteers were judges at the Kentucky-American Science Fair and other local science fairs. KEEN also worked with the Boy Scouts, Cub Scouts, and Governor's Scholars.

KEEN is a program with goals varying from district to district. We do not have a set goal for the entire organization since priorities do change from year to year. However, we anticipate continuing at the current level of performance. We anticipate seeing 15,000 students per year in 70 different counties. We also plan on developing newer and more innovative presentations and involving new volunteers. KEEN's website is **www.kytc.state.ky.us/Education/keen.htm**.



Civil Engineering Scholarship Program

Since 1948, the Kentucky Transportation Cabinet (KYTC) Civil Engineering Scholarship Program (www.kytc.state.ky.us/person/ScholarshipProgram.htm) has provided highly qualified individuals to fill the needs and improve the overall engineering expertise within the Transportation Cabinet. The program promotes the education of interested students with financial assistance, on-the-job training, and employment opportunities after graduation.

In 1948, the program began at the University of Kentucky. There were 18 scholarships of $500 each, given to freshman students studying civil engineering. There was no obligation at that time, just a suggestion to work for the Cabinet in the summers and upon graduation. The program has expanded rapidly over the years to now include 71 available scholarship positions at four universities - University of Kentucky, University of Louisville, and pre-engineering at Western Kentucky University and Kentucky State University (dual degree programs with these two universities, finishing at the University of Kentucky). The current stipends are now $3,600 (gross amount) for freshman/sophomores and $4,000 (gross amount) for junior/senior/5th year, per semester. Total monetary support for up to 5 years on scholarship amounts to $38,400. Students now enter a contractual obligation to work for the Cabinet for one year for every year on scholarship upon graduation. Students are offered summer employment at competitive salaries.

The KYTC Scholarship Program is the longest running, largest and best-established scholarship of its kind anywhere in the nation. In its 55 years of existence, the program has given away 1,400+ scholarships amounting to over $10 million. The program has been featured in *Engineering News Record*, under the Innovative Practices section of the National Highway Institute's website - www.nhi.fhwa.dot.gov/transworkforce/innovative.asp#CAT1, and KYTC Secretary, James C. Codell, III, Past President of AASHTO, has given recognition to the program across the world in 2003. With an annual budget of $532,000, the scholarship program is able to recruit among the best and brightest students at all four universities. Students are given stipends near the beginning of the fall and spring semesters to help pay for tuition, books, and other college expenses.

The KYTC Civil Engineering Scholarship Program, with all of its history and consistency, is still evolving from year to year. Continuous program improvement is an agency priority. This year, a customer satisfaction survey will be implemented for both the students and the scholarship selection committee at each university to see how the program can be enhanced from the customer viewpoint.

Our goal is to recruit and retain exceptional engineers who will enjoy a career with the Transportation Cabinet. With this program the Cabinet is able to provide monetary support for students in return for qualified, experienced, and appreciative employees that will enhance the Cabinet workforce long after the obligation is complete. During the December 2000 through August 2003 period, we have retained 100% of our program graduates. This is a substantial savings in recruitment and training of new hires.

Safety - Child Passenger Safety

Since the conception of the Drive Smart program in 1997, there has been a strong child passenger safety component. This precedence is only restated through the national statistic that motor vehicle crashes account for the death and disability for children over the age of one year. But, for every child's death in a car crash, there are 45 children hospitalized. Drive Smart's Child Passenger Safety Program provides statewide child safety seats check-up events, educational presentations and instructs certified child passenger safety technician classes. Besides the previous tasks, the employees of the program are highly involved with local injury prevention programs (i.e., Kentucky SAFE KIDS Coalition) and advocates for any legislation that will reduce children's injuries and deaths when in motor vehicles.

At child safety seat check-up events, certified child passenger safety technicians inspect car seats of those attending for correct installation of the seat and for proper fit of the child in the seat. During the event, the parents/caregivers are educated on the proper usage of their seat with their vehicle. If used correctly, child safety seats are 71% effective in reducing fatalities in children under the age of one and 54% effective for children one to four years of age. Unfortunately, after checking over 996 seats during the past 2002-2003 fiscal year of the program, there is a statewide misuse rate of 92%. As a result of numerous potentially disastrous problems with some safety seats at these checks (i.e., too old of seat, seat involved in a crash, missing parts), the program has helped to replace over 1,650 safety seats. There have been numerous studies showing that each $45-$50 child safety seat saves an estimated $100 in medical spending and related insurance claims processing over its 4-5 year life. Child safety seat check-up events have been conducted in 84 of the 120 counties and one of the objectives for this next year is to reach some of the counties that have not had an event or have had just one event.

Drive Smart also maintains the Buckle That Child Hotline. Motorists can anonymously call 800-235-8KID to report the Kentucky license plate of any vehicle with an unrestrained child. An educational packet with child safety restraint tips is sent to the registered owner of the vehicle. 1,149 calls have been made this 2002-2003 fiscal year.

Besides the previous mentioned objective of conducting child passenger safety seat check-up events in counties not reached by the program, another objective is to spread the word about the effectiveness of booster seat usage for children in motor vehicles. Currently, Kentucky has only a primary child restraint law for children 40 inches in height and less to be properly secured in a federally approved child restraint, and a secondary vehicle restraint law for everyone over 40 inches. This law is causing the "forgotten children" syndrome. Children, who outgrow seats that have harness systems designed for a child under 40 pounds, are right now legally able to ride in a regular vehicle safety belt. Unfortunately, the vehicle restraint system is designed for passengers taller than 4 feet 9 inches tall and does not appropriately fit the small stature of children between 40-58 inches. The lap belt (of the lap/shoulder belt) rides high on the abdomen causing life-threatening injuries to the stomach, liver, spleen, and the spinal cord called "lap belt syndrome." If used, the shoulder belt crosses their neck and face, instead of snugly against their collarbone. With the use of a booster seat for children over 40 lbs., it would boost the child enough to properly have the lap portion of the belt on their hips and the shoulder belt placed snugly against their collarbone. Nine of ten parents think that if they follow their state law, their children will be adequately protected. Comprehensive child restraint laws, which are in closer alignment with best practice, would help eliminate parent's confusion.

1-800-235-8KID

Environmental Stewardship

The Kentucky Transportation Cabinet continues to foster an attitude and work ethic that places a high priority on environmental stewardship as a core element in how we conduct our daily activities. We have developed our Environmental Policy and deployed the philosophy throughout our organization.

Environmental stewardship is not a tangible thing. Stewardship comes from the root word of steward, which relates to managing something that belongs to someone else. Stewardship is the perception of others as we talk and act on and off the job.

The following are some of the highlights for this year:

Newtown Pike Extension Project

Newtown Pike Extension project is a new 1.5 mile road connection that does more for the community than just allowing vehicles to move. This project also provides housing for highway relocatees, provides additional housing for neighborhood residents in dilapidated housing, and upgrades the area infrastructure to include streets, curbs, and storm drainage.

Air Quality Outreach

Radio and television ads from the "It All Adds Up To Cleaner Air" program were customized to focus on area specific items from the Environmental Protection Agency's (EPA) "Ten Simple Steps" listed below. Mass transit was stressed in metropolitan areas, while trip chaining and ride sharing were emphasized in areas without an extensive transit network. Car care and other tips were included in all areas. Note that the Kentucky 511 Traveler Information Number introduced in November 2002, fits nicely with tip # 9, "Know before you go". Information regarding 511 program will be added to the air quality outreach program in 2004.

EPA's "Ten Simple TIPS" document lists some things individuals can do to improve the air quality.

1. Trip chain more often. It's easy! Help reduce traffic congestion and air pollution by combining your errands into one trip. When you first start a car after it has been sitting for more than an hour, it pollutes up to five times more than when the engine's warm.
2. Take mass transit, share a ride or carpool. Even if you do it just once or twice a week, you'll reduce traffic congestion and pollution, and save money. The average driver spends about 44 cents per mile including ownership and maintenance.
3. Have fun! Ride your bike. It's a great way to travel and it can help you and the air get into condition. Vehicles on the road cerate more than 25% of all air pollution nationwide.
4. Take things in stride. Walk or in-line skate instead of driving.
5. Care for you car. Regular maintenance and tune-ups, changing the oil and checking tire inflation can improve gas mileage, extend your car's life and increase its resale value. It can reduce traffic congestion and reduce your car's emissions by more than half.
6. Get fuel when it's cool. Refueling during cooler periods of the day or in the evening can prevent gas fumes from heating up and creating ozone.
7. Don't top off the tank. It releases gas fumes into the air and cancels the benefit of the pump's anti-pollution devices. So stopping short of a full tank is safer and reduces pollution.
8. Telecommute. Work at home sometimes. You'll save time and money, and reduce traffic.
9. Know before you go. If your area has a travel and transit information network, use it by calling, visiting the websites or tuning into the cable station.
10. Spread the word. If everyone took a few of these simple easy steps, it could make a big difference because—It all adds up to cleaner air.